

## Model

## Miniature Switch Mode Power Supply

# AAD130

**H.A.L.T.** Highly Accelerated Life Testing  
TESTED

- 130 Watts output power
- Power Factor Correction
- Parallel/Redundant Operation
- Up to 88% Efficiency

### Electrical Specifications

Input Voltage:	90-264 VAC, 47-63 Hz
Input Current:	<2A RMS @ 115 VAC @ full load <1A RMS @ 230 VAC @ full load
Inrush Current:	<35A, pk @ 132 VAC @ cold start <75A, pk @ 264 VAC @ cold start
Power Factor:	>0.98 @ full load @ 115/230VAC input
Harmonic Distortion:	Meets EN61000-3-2
EMI Filtering:	Meets CISPR 11 and 22 and FCC Part 15 Class B (conducted)
Input Protection:	Internal AC line fuse; 250 VAC, 4.0A
Output Power:	130W with 15CFM air; 80W Convection cooled (consult factory for current ratings)
Line Regulation:	± 0.3%
Load Regulation:	± 1% for V1 and V2 ± 5% for V3 and V4
PARD:	Greater of 1% or 50mV 20MHz bandwidth
Hold-up Time:	>20 ms @ full load
Turn-on Delay:	<2 seconds
Output Polarity:	See Voltage Chart
Minimum Load:	>0.5A for V1 and V2 >0.1A for V3 and V4
Transient Response:	Greater of 150mV or 3% for 25% load change @ 1A/μs (V1 and V2)
Output Rise Time:	<100 ms (10% to 90%)



Remote Sense:	Standard on V1 and V2 Up to 400mV of cable drop
AC Power Fail:	TTL <sub>LOW</sub> logic "0" at least 5 ms before DC output drops 5% (without signal jitter). <10mA sink current for Power Fail "0". <1mA source current for Power Fail "1".
Overshoot/Undershoot:	<5% overshoot with remote sense at output terminals
Current Share (option):	Load currents of V1 and V2 for similar units can be shared @ <±5% of total load
Overvoltage Protect:	Factory set, 125% ±5% on V1 and V2 cycle AC to reset
Short Circuit Protection:	All outputs are auto recovery
Reverse Voltage:	Reverse current up to rated outputs
Case Power Protection:	Standard operation interrupt (hiccup mode)
Efficiency:	Up to 88%
MTBF:	MIL-STD-HDBK 217E >200,000 hours @ 25°C Highly Accelerated Life Testing

### Available Voltage Outputs\*

Voltage Codes	V1 Voltages (Volts)	V1 Currents (Amps)	V2 Voltages (Volts)	V2 Currents (Amps)	V3 Voltages (Volts)	V3 Currents (Amps)	V4 ** Voltages (Volts)	V4 Currents (Amps)
-1	+1.8	14	+1.8	16	+1.8	1.5	-1.8	1.5
-2	+3.3	14	+3.3	16	+3.3	1.5	-3.3	1.5
-3	+5	14	+5	14	+5	1.5	-5	1.5
-4			+12	5	+12	1.5	-12	1.5
-5					+15	1.5	-15	1.5
-6					+24	1.5	-24	1.5

\* Consult factory for other voltages and OEM quantities.

\*\* Standard Polarity for V4 is negative (-). V4 is available with positive polarity as a Tailored or Custom model.

Note: Standard models are 3244, 3255, 3264, 3404 and 3464

### PART # STRUCTURE:

MODEL - VOLTAGE CODE - OPTION CODES (See back)  
 - V1 V2 V3 V4 -  
**AAD130 - X X X X - ABC...**

Example: Part Number **AAD130-3244-AM** = 130W Power Factor Corrected, (V1) +5V @ 14A, (V2) +3.3V @ 16A, (V3) +12V @ 1.5A and (V4) -12V @ 1.5A with Current Sharing and Metric Mounting.

SEE 3rd page for AAD130 CODE TABLE AND AVAILABLE OPTIONS.



**Model**  
**AAD130**  
**Options (code)**

- #6-32 PEM Nut (Standard)
- PF Invert (B)
- Metric Mounting (M)
- Input and Options with Gold Pins (G)
- Molex Output Connector with Gold Pins (J)
- Molex Connectors with Standard Pins (K)
- Current Sharing (A)
- Thru-Hole Mounting (C)
- PF Open Collector (O)

**Surge & ESD Test Levels**

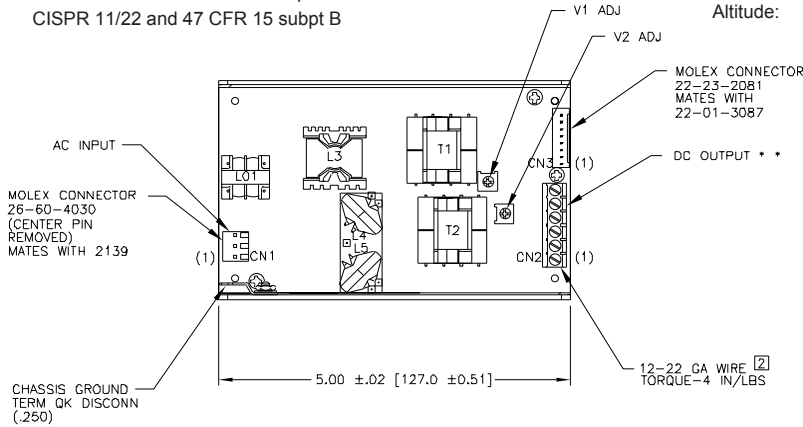
- EN61000-4-5 Level 3
- EN61000-3-2
- EN61000-4-4 Level 3
- Meets Class B conducted limits per CISPR 11/22 and 47 CFR 15 subpt B
- EN61000-4-2 Level 2
- EN61000-4-2 Level 3 (Air Only)
- EN61000-4-11

**Safety Compliance**

- IEC / EN / UL / CSA 60950-1
- CE Declaration to Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EU

**Physical Specifications**

- Dimensions: (HxWxL) 1.25" x 3.14" x 5"
- Operating Temp: 0 to 50°C; rated power to 50°C with 15CFM air
- Relative Humidity: 5% to 90%, non-condensing
- Storage: -50 to 85°C/20-90% RH
- Altitude: 6561
- 40,000' storage



PIN NO.	CN1
1	AC LINE
2	
3	NEUTRAL

MOLEX CONNECTOR 26-60-4030 CENTER PIN REMOVED

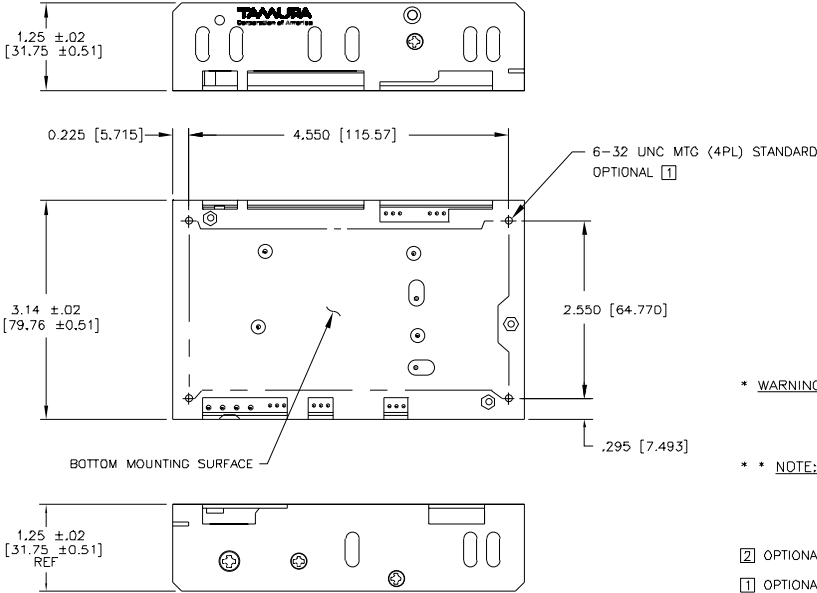
PIN NO.	CN2	
1	V3	**
2	V2	**
3	RTN	**
4	RTN	**
5	V1	**
6	V4	**

FOR 12-22 GA WIRE TORQUE-4 IN/LBS

PIN NO.	CN3	
1	V2 CURRENT SHARE	
2	V1 CURRENT SHARE	
3	POWER FAIL	
4	RTN	
5	V1 -REMOTE SENSE	*
6	V1 +REMOTE SENSE	*
7	V2 +REMOTE SENSE	*
8	V2 -REMOTE SENSE	*

MOLEX CONNECTOR 22-23-2081

UNIT WEIGHT	
0.72 LBS	



- \* **WARNING:** DAMAGE WILL OCCUR IF REMOTE SENSE LEADS ARE REVERSED OR USED WITH LOAD DISCONNECTED FROM RESPECTIVE OUTPUTS.
- \*\* **NOTE:** FOR PROPER REGULATION MINIMUM LOADS ARE REQUIRED. 0.5A FOR V1 AND V2. 0.1A FOR V3 AND V4

② OPTIONAL- MOLEX CONNECTOR LIMITED TO 7A FOR V1, V2 OUTPUT  
① OPTIONAL- #6 CLEARANCE HOLE PROVIDED THROUGH THE BOARD AND CHASSIS FOR TOP SIDE MOUNTING OF POWER SUPPLY.  
NOTES: UNLESS OTHERWISE SPECIFIED.

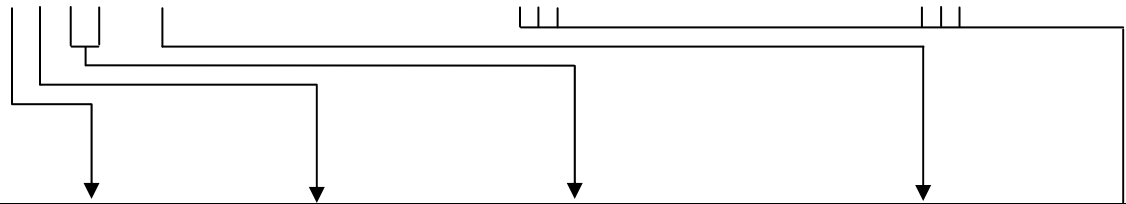


AAD130 Power Supply Series

Standard Models  
AAD130-V W X X-Y<sub>1</sub>...Y<sub>n</sub>

Tailored Models  
AAD130-60ZZZ

Custom Models  
AAD130 -61ZZZ



Codes	Voltage and Current Ratings						Standard Options
	"V" Channel		"W" Channel		"X" Channels		"Y" Code Descriptions
	(V1) Volts	(V1) Amps	(V2) Volts	(V2) Amps	(V3 and V4) *** Volts	(V3 and V4) *** Amps	
1	+1.8	14	+1.8	16	1.8	1.5	A Current Sharing B PF Invert C Through Hole Mounting* G = Gold Input and Option Connector Pins J = Molex Output Connector with Gold Pins** K = Molex Output Connector with Standard Pins** M = Metric Mounting* O = PF Open Collector  *Standard Pemnut mounting is standard  **7A MAX current for V1, V2 outputs
2	+3.3	14	+3.3	16	3.3	1.5	
3	+5	14	+5	14	5	1.5	
4	Not Available		+12	5	12	1.5	
5	Not Available		Not Available		15	1.5	
6	Not Available		Not Available		24	1.5	
0	Not Used		Not Used		Not Used		
<b>***NOTES:</b>  1. Standard polarity for V4 is negative (-). 2. V4 is available with positive (+) polarity as Tailored or Custom model. 3. V3 is available only with positive (+) polarity.							Tailored Units (No safety changes) ----- 60ZZZ, where ZZZ = Factory Assigned Number Harnesses Added, Special test data, Etc.
							Custom Units (Safety critical changes) ----- 61ZZZ, where ZZZ = Factory Assigned Number